

# **DISTRIBUTED BRAGG REFLECTORS INCORPORATING Sb MATERIAL FOR LONG-WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASERS**

## **ABSTRACT OF THE DISCLOSURE**

**[0066]** A distributed Bragg reflector (DBR) for a vertical cavity surface emitting laser (VCSEL) has a semiconductor material system including the elements aluminum, gallium, arsenic, and antimony. Use of antimony in the DBR structure allows current to be pumped through the DBRs into an active region to provide for long wavelength, continuous wave operation of the VCSEL.